

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A service providing system for correlating service to a virtual object which is data having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the virtual object, comprising:

a storage device that associates object information related to the spatial information of the virtual object with service information specifying a service content, and that stores the object information and service information; and

a location-information acquisition device that obtains location information used for identifying a location of the mobile member,

when it is determined according to the location information obtained by the location-information acquisition device and the object information stored in the storage device that the mobile member is disposed in an inside area of the specified space identified by the shape and location of the virtual object, service corresponding to the specified space being provided according to the service information stored in the storage device, the service including restriction of a specific action,

the object information including information, the information providing a preset time duration for construction-appearance of the virtual object, and

the shape of the virtual object including a sphere or a cube.

2. (Previously Presented) A service providing system according to claim 1,

the mobile member and a management terminal that manages the specified space being connected in a communication-allowed manner;

the mobile member includes the location-information acquisition device, and sends the location information obtained by the location-information acquisition device to the management terminal; and

the management terminal having the storage device, and when the management terminal receives the location information, the management terminal determines, according to the received location information and the object information stored in the storage device, whether the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object.

3. (Previously Presented) A service providing system according to claim 1, the mobile member and a management terminal that manages the virtual object being connected in a communication-allowed manner;

the management terminal includes the storage device, and sends the object information stored in the storage device to the mobile member; and

the mobile member includes the location-information acquisition device, and when the mobile member receives the object information, the mobile member determines, according to the location information obtained by the location-information acquisition device and the received object information, whether the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object.

4. (Previously Presented) A service providing system according to claim 2, wherein, when the result of the determination indicates that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, the management terminal provides service corresponding to the virtual object based on the service information stored in the storage device.

5. (Previously Presented) A service providing system according to claim 2, the management terminal sending the service information stored in the storage device to the mobile member in advance, and when the result of the determination indicates that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, the mobile member provides service corresponding to the specified space based on the received service information.

6. (Previously Presented) A service providing system according to claim 2, the management terminal further comprising:

an input device that performs an input related to at least one of generation, update and deletion of the object information; and

an object-information processing device that performs at least one of generating, updating and deleting the object information according to the content of the input performed by the input device.

7. (Previously Presented) A service providing system according to claim 1, the service information being operation information specifying a content of an operation of the mobile member or another apparatus, and

when it is determined that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, the mobile member or the another apparatus is operated based on the operation information corresponding to the specified space stored in the storage device.

8. (Previously Presented) A service providing system according to claim 1, the service information specifying a content of service in which media information related to at least one of characters, images, and video is provided for the mobile member, and

when it is determined that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, the media information is provided for the mobile member based on the service information corresponding to the specified space, stored in the storage device.

9. (Previously Presented) A service providing system according to claim 1, the service information specifying a content of service in which notice information related to at least one of a notice and guidance information related to a guidance is provided for the mobile member, and

when it is determined that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, the notice information and the guidance information are provided for the mobile member based on the service information corresponding to the specified space, stored in the storage device.

10. (Previously Presented) A service providing system according to claim 1, the mobile member being a portable terminal.

11. (Currently Amended) A service providing system for correlating service to a virtual object which is data having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space based on a positional relationship between a movable mobile member and the specified space, comprising:

a storage device that associates object information related to the virtual object with operation information specifying a content of an operation of the mobile member or another apparatus, and that stores the object information and the operation information,

when it is determined, according to the object information stored in the storage device, that the positional relationship between the mobile member and the specified space

satisfies a predetermined condition, the mobile member or the another apparatus being operated based on the operation information corresponding to the specified space stored in the storage device, the operation including restriction of a specific action,

the object information including information, the information providing a preset time duration for ~~construction~~ appearance of the virtual object, and the shape of the virtual object including a sphere or a cube.

12. (Currently Amended) A service providing system for correlating service to a virtual object which is having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the virtual object, comprising:

a storage device that associates object information related to the virtual object with service information specifying the content of service, and that stores the object information and service information;

an input device that performs an input related to at least one of generation, update and deletion of the object information; and

an object-information processing device that performs at least one of generating, updating and deleting the object information according to the content of the input performed by the input device,

when it is determined according to the object information stored in the storage device that the positional relationship between the mobile member and the specified space satisfies a predetermined condition, the service corresponding to the specified space being provided based on the service information stored in the storage device, the service including restriction of a specific action,

the object information including information, the information providing a preset time duration for ~~construction~~ appearance of the virtual object, and
the shape of the virtual object including a sphere or a cube.

13. (Previously Presented) A terminal connected to the mobile member used in a service providing system according to claim 2 in a communication-allowed manner, comprising a storage device,

wherein, when the terminal receives the location information, the terminal determines, according to the received location information and the object information stored in the storage device, whether the mobile member being disposed in the inside area of the specified space identified by the shape and location information of the virtual object.

14. (Previously Presented) A mobile member connected to the management terminal used in a service providing system according to claim 3 in a communication-allowed manner, comprising a location-information acquisition device,

wherein, when the mobile member receives the object information, the mobile member determines, according to the location information obtained by the location-information acquisition device and the received object information, whether the mobile member being disposed in the inside area of the specified space identified by the shape and location of the virtual object.

15. (Currently Amended) A computer readable medium that stores a service providing program for correlating service to a virtual object which is data having a spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the virtual object, the program making a computer, which is capable of using a storage device that associates and stores object

information related to the shape and location of the virtual object with service information specifying a service content, and a location-information acquisition device that obtains location information used for identifying the location of the mobile member, the program comprising:

instructions for, when it is determined according to the location information obtained by the location-information acquisition device and the object information stored in the storage device that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, the object information including information, the information providing a preset time duration for appearance~~construction~~ of the virtual object, providing the service corresponding to the specified space based on the service information and the information stored in the storage device, the service including a restriction of a specific action,

the shape of the virtual object including a sphere or a cube.

16. (Currently Amended) A computer readable medium that stores a service providing program for correlating service to a virtual object which is data having a spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the specified space, the program making a computer, which is capable of using a storage device that associates and stores object information related to the virtual object with operation information specifying a content of an operation of the mobile member or another apparatus, the program comprising:

instructions for, when it is determined according to the object information stored in the storage device that the positional relationship between the mobile member and the specified space satisfies a predetermined condition, the object information including

information, the information providing a preset time duration for ~~construction~~ appearance of the virtual object, operating the mobile member or the another apparatus based on the operation information corresponding to the specified space and the information stored in the storage device, the operation including a restriction of a specific action,
the shape of the virtual object including a sphere or a cube.

17. (Currently Amended) A computer readable medium storing a service providing program for correlating service to a virtual object having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the specified space, the program making a computer, which is capable of using a storage device that associates and stores object information related to the virtual object with service information specifying the content of service, the object information including information, the program comprising:

instructions for, when it is determined according to the object information stored in the storage device that the positional relationship between the mobile member and the specified space satisfies a predetermined condition, the object information including information, the information providing a preset time duration for ~~construction~~ appearance of the virtual object, providing the service corresponding to the specified space based on the service information and the information stored in the storage device, the service including a restriction of a specific action;

instructions for performing an input related to at least one of generation, update and deletion of the object information; and

instructions for performing at least one of generating, updating and deleting the object information according to a content of the input performed by an input device,

the shape of the virtual object including a sphere or a cube.

18. (Currently Amended) A service providing method for correlating service to a virtual object having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space based on a positional relationship between a movable mobile member and the specified space, comprising:

associating and storing object information related to the shape and location of the virtual object with service information specifying a service content, the object information including information, the information providing a preset time duration for ~~construction~~ appearance of the virtual object;

obtaining location information used for identifying the location of the mobile member; and

when it is determined, according to the obtained location information and the stored object information, that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, providing service corresponding to the specified space according to the stored service information and the stored information, the service including a restriction of a specific action,

the shape of the virtual object including a sphere or a cube.

19. (Currently Amended) A service providing method for correlating service to a virtual object having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the specified space, comprising:

associating and storing object information related to the virtual object with operation information specifying the content of an operation of the mobile member or another apparatus, the object information including information, the information providing a preset time duration for ~~construction~~appearance of the virtual object; and

when it is determined according to the stored object information that the positional relationship between the mobile member and the specified space satisfies a predetermined condition, the mobile member or the another apparatus is operated based on the stored operation information corresponding to the specified space and the stored information, the operation including a restriction of a specific action,

the shape of the virtual object including a sphere or a cube.

20. (Currently Amended) A service providing method for correlating service to a virtual object which is data having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the specified space, comprising:

associating and storing object information related to the virtual object with service information specifying the content of service, the object information including information, the information providing a preset time duration for ~~construction~~appearance of the virtual object;

when it is determined according to the stored object information that the positional relationship between the mobile member and the specified space satisfies a predetermined condition, providing the service corresponding to the specified space based on the stored service information and the information, the service including a restriction of a specific action;

performing an input related to at least one of generation, update and deletion of the object information; and

at least one of generating, updating and deleting the object information based on the content of the performed input,

the shape of the virtual object including a sphere or a cube.

21. (Previously Presented) A service providing system according to claim 1, the system further comprising:

an input device that generates the data for the virtual object, the input device transmitting the data to the storage device, the storage device registering the data and associating the object information with the service information.

22. (Previously Presented) A service providing system according to claim 11, the system further comprising:

an input device that generates the data for the virtual object, the input device transmitting the data to the storage device, the storage device registering the data and associating the object information with the service information.

23. (Previously Presented) A computer readable medium storing the service providing program according to claim 15, the program further comprising:

instructions for implementing an input device that generates the object information and transmits the object information to the storage device.

24. (Previously Presented) A computer readable medium storing the service providing program according to claim 16, the program further comprising:

instructions for implementing an input device that generates the object information and transmits the object information to the storage device.

25. (Previously Presented) A service providing method according to claim 18, the method further comprising:

generating data for the virtual object and transmitting the data to a storage device for registering.

26. (Previously Presented) A service providing method according to claim 19, the method further comprising:

generating data for the virtual object and transmitting the data to a storage device for registering.

27. (Currently Amended) A service providing system for correlating service to a virtual object which is having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space in the specified space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the virtual object, comprising:

a storage device that associates object information related to the virtual object with service information specifying the content of service, and that stores the object information and service information;

a mobile input device that performs an input related to at least one of generation, update and deletion of at least one of the object information and the service information related to the virtual object; and

an object-information processing device that performs at least one of generating, updating and deleting the at least one of the object information and the service information related to the virtual object according to the content of the input performed by the mobile input device,

when it is determined according to the object information stored in the storage device that the positional relationship between the mobile member and the specified space

satisfies a predetermined condition, the service corresponding to the specified space is provided based on the service information stored in the storage device, and

when it is determined according to the object information stored in the storage device that the positional relationship between the mobile input device and the specified space satisfies a predetermined condition, the object-information processing device performing at least one of generation, deletion and update of the at least one of the object information and the service information according to the content of the mobile input performed by the mobile input device,

the shape of the virtual object including a sphere or a ~~eube~~-cube,

the object information including information that provides a preset time duration for appearance of the virtual object.

28. (Currently Amended) A computer readable medium storing a service providing program for correlating service to a virtual object which is data having a spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space in the specified space, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the virtual object, the program making a computer, which is capable of using a storage device that associates and stores object information related to the shape and location of the virtual object with service information specifying a service content, and a location-information acquisition device that obtains location information used for identifying the location of the mobile member, the program comprising:

instructions for performing an input related to at least one of generation, update and deletion of at least one of the object information and the service information,

instructions for performing at least one of generation, update and deletion of the at least one of the object information and the service information according to a content of the input performed by a mobile input device,

instructions for, when it is determined according to the location information obtained by the location-information acquisition device and the object information stored in the storage device that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, providing the service corresponding to the specified space based on the service information stored in the storage device; and

instructions for, when it is determined according to the object information stored in the storage device that the positional relationship between the mobile input device and the specified space satisfies a predetermined condition, performing at least one of generation, update, and deletion of the at least one of the object information and the service information according to the content of the input performed by the mobile input device,

the shape of the virtual object including a sphere or a ~~cube~~-cube,

the object information including information that provides a preset time duration for appearance of the virtual object.

29. (Currently Amended) A service providing method for correlating service to a virtual object having spatial information, relating to shape and location, constructed on a computer corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space in the specified space, and for providing service corresponding to the specified space based on a positional relationship between a movable mobile member and the specified space, comprising:

associating and storing object information related to the shape and location of the virtual object with service information specifying a service content;

obtaining location information used for identifying the location of the mobile member;

performing an input related to at least one of generation, update and deletion of at least one of the object information and the service information;

performing at least one of generation, update and deletion of the at least one of the object information and the service information according to a content of the input performed by a mobile input device;

when it is determined, according to the obtained location information and the stored object information, that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, providing service corresponding to the specified space according to the stored service information; and

when it is determined according to the object information stored in the storage device that the positional relationship between the mobile input device and the specified space satisfies a predetermined condition, performing at least one of generation, update and deletion of the at least one of the object information and the service information according to the content of the input performed by the mobile input device,

the shape of the virtual object including a sphere or a ~~cube~~-cube,

the object information including information that provides a preset time duration for appearance of the virtual object.